

### **REMARKS / ARGUMENTS**

The present application includes pending claims 1-31, all of which have been rejected. By this Amendment, claims 2-20 and 22-30 have been amended, as set forth above, to further clarify the language used in these claims and to further prosecution of the present application. The Applicant respectfully submits that the claims define patentable subject matter.

#### **I. Statutory subject matter Claims 11-20**

The Applicant now turn to the rejection of claims 11-20 under 35 U.S.C. § 101 as the claimed invention is directed to non-statutory subject matter. A machine-readable storage, having stored thereon, a computer program, can be just a piece of paper having program codes written thereon, and is therefore non-statutory. The Applicant respectfully traverse these rejections.

Nevertheless, with regard to the rejection of independent claim 11, the Applicant has amended claim 11 to further prosecution of the case by changing the "machine-readable storage" language to "computer-readable media."

Since the rejection of claim 11 under 35 U.S.C. §101 has been overcome for at least the reasons given above, and the claims 12-20 depend on independent

claim 11, the Applicant respectfully submits that the rejection of 11-20 under 35 U.S.C. §101 be withdrawn and the claims made allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 11-20.

**II. Ala-Laurila et al. Does Not Render Claims 1-7, 9-17, 19-27, and 29-31 Unpatentable**

The Applicant turns to the rejection of claims 1-7, 9-17, 19-27, and 29-31 under 35 U.S.C. § 102(e) as being anticipated by Ala-Laurila et al. (US 6,587,680, hereafter Laurila).

**A. Rejection of Independent Claim 1, 11 and 21**

With regard to the rejection of independent claim 1 under 102(e), Applicant submits that Laurila does not disclose or suggest at least the limitation of "servicing said access device by one of said first access point, said second access point and said third access point **based on said initial authentication**" as recited by the Applicant in original independent claim 1.

MPEP 2131 states that "[a] claim is anticipated only if **each and every element** as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." See MPEP at 2131 (internal citation omitted). Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." See *id.* (internal citation omitted).

The Office Action states the following:

Laurila discloses a method for providing seamless connectivity and communication in a multi-band, multi-protocol network (abstract), the method comprising:

initially authenticating an access device upon said access device initiating communication with a first access point (fig. 3, col 8 lines 62-67, AP\_old or the old access point that mobile terminal 12 is originally communicating and about to disconnect to hand-over to a new access point, or AP\_new 114; SA or security association, read as authentication information, is retrieved from AP\_old, suggesting that AP\_old has stored authentication information of mobile terminal 12 for the original communication);

providing authentication information related to said initial authentication to at least one of a second access point and a third access point (fig. 3, HO\_request, a handover request containing authentication information is sent from AP\_old to AP\_new); and

servicing said access device by one of said first access point, said second access point and said third access point based on said initial authentication (fig. 3, payload traffic or servicing can be resumed between the mobile terminal and the new AP).

See the Office Action at page 3.

Laurila does not teach servicing said access device by one of said first access point, said second access point and said third access point **based on said initial authentication** as recited by the Applicant in the independent claim 1. The

Applicant submits that FIGs. 5A-5C of Laurila show the process of backward handover shown in FIG. 3 of Laurila. Laurila teaches authentications at the new AP114 (step 515) and at the MT12 (step 519) based on creation of a new SA and **generation of new** challenge information (steps 507, 513) and calculation of responses (steps 512, 517). In this regard, additional new challenge or response (steps 514, 518) are generated to complete the two authentications at the new AP114 (step 515) and at MT12 (step 519) before payload traffic can be resumed (handover of MT12 service from the old AP14 to the new AP114).

Laurila creates a totally new SA to provide authentication for the new access point (New-AP) 114. See Laurila, FIG. 5A, step 506, and column 10, lines 50-52. Since Laurila creates a totally new SA, which is utilized to authenticate the new access point (New-AP) 114, then Laurila does not disclose "servicing said access device by one of said first access point, said second access point, and said third access point **based on said initial authentication.**" In addition, Laurila teaches the handover of MT12 service uses new information (generating challenges and calculating responses) to perform authentications at the new AP114 and at the MT12. See Laurila, FIG. 5A, step 507, column 10, lines 52-57.

Accordingly, independent claim 1 is not anticipated by Laurila and is allowable. Independent claims 11 and 21 are similar in many respects to the method disclosed in independent claim 1. Therefore, the Applicant submits that

independent claims 11 and 21 are also allowable for the same rationale as in claim 1.

**B. Rejection of dependent Claims 2, 12 and 22**

Claims 2, 12 and 22 depend from independent claims 1, 11 and 21 respectively, and are, consequently, also respectfully submitted to be allowable for at least the same reasons discussed above with respect to claims 1, 11 and 21.

**C. Rejection of dependent Claims 3, 13 and 23**

Additionally, Laurila does not disclose retrieving said stored initial authentication information by said second access point and said third access point, as recited in claims 3, 13 and 23. Moreover, claims 3, 13 and 23 depend from independent claims 1, 11 and 21 respectively, and are, consequently, also respectfully submitted to be allowable for at least the same reasons discussed above with respect to claims 1, 11 and 21.

**D. Rejection of dependent Claims 4, 14 and 24**

Additionally, Laurila does not disclose said retrieving comprises retrieving said initial authentication information by said second access point when said access device migrates from a first coverage area associated with said first access point to a second coverage area associated with said second access point, as recited in claims 4, 14 and 24. Moreover, claims 4, 14 and 24 depend from independent claims 1, 11 and 21 respectively, and are, consequently, also respectfully submitted to be allowable for at least the same reasons discussed

above with respect to claims 1, 11 and 21, as well as for the reasons discussed above with respect to 3, 13 and 23.

**E. Rejection of dependent Claims 5, 15 and 25**

Claims 5, 15 and 25 depend from independent claims 1, 11 and 21 respectively, and are allowable for at least the same reasons discussed above with respect to claims 1, 11 and 21, as well as for the reasons discussed above with respect to claims 4, 14 and 24, and, consequently, also respectfully submitted to be allowable.

**F. Rejection of dependent Claims 6, 16 and 26**

Additionally, Laurila does not disclose retrieving comprises retrieving said initial authentication information upon said access device initiating communication with said second access point. Laurila discloses an authentication challenge is generated in the new AP114 in the HO\_RESPONSE to update the SA parameters in the MT, subsequent to receiving the HO\_REQUEST (SA). Claims 6, 16 and 26 depend from independent claims 1, 11 and 21 respectively, and are allowable for at least the same reasons discussed above with respect to claims 1, 11 and 21, and, consequently, also respectfully submitted to be allowable.

**G. Rejection of dependent Claims 7, 17 and 27**

Claims 7, 17 and 27 depend from independent claims 1, 11 and 21 respectively, and are allowable for at least the same reasons discussed above

with respect to claims 1, 11 and 21, and, consequently, also respectfully submitted to be allowable.

**H. Rejection of dependent Claims 9, 19 and 29**

Additionally, Laurila does not disclose transparently transferring said initial authentication information to said second access point during a handoff of said access device from said first access point to said second access point. Laurila discloses generation of ap\_challenge, mt\_response, mt\_challenge, ap\_response that are used for MT authentication and AP authentication respectively, that differ from the HO\_request (SA), therefore no transparent transferring of said initial authentication information during a handoff. Claims 9, 19 and 29 depend from independent claims 1, 11 and 21 respectively, and are allowable for at least the same reasons discussed above with respect to claims 1, 11 and 21, as well as for the reasons discussed above with respect to claim 5, and consequently, also respectfully submitted to be allowable.

**I. Rejection of dependent Claims 10, 20 and 30**

Claims 9, 19 and 29 depend from independent claims 1, 11 and 21 respectively, and are allowable for at least the same reasons discussed above with respect to claims 1, 11 and 21, as well as for the reasons discussed above with respect to claim 5, and consequently, also respectfully submitted to be allowable.

**J. Rejection of dependent Claim 31**

Claim 31 depends from independent claims 21 and is allowable for at least the same rationale as set forth above with respect to claim 21, as well as the reasons discussed above with respect to claim 25, and consequently, also respectfully submitted to be allowable.

**III. The Proposed Combination of Laurila et al. in view of Bhagwat et al. Does Not Render Claims 8, 18, 28 Unpatentable**

The Applicant turns to the rejection of claims 8, 18, and 28 under 35 U.S.C. § 103(a) as being anticipated over Laurila in view of Bhagwat et al. (US 6,651,105, hereafter Bhagwat).

In the Office Action, the Examiner states:

"for claims 8, 18, and 28, Laurila discloses the invention substantially as in claims 1, 11 and 21. Laurila does not disclose distributing said initial authentication information to said second access point and said third access point upon said initial authenticating. However, Bhagwat discloses distributing said initial authentication information to said second access point and said third access point upon said initial authenticating (fig.5, authentication server, col 7 lines 34-42, col. 10 lines 14-34, a centralized authentication server stores authentication information of mobile devices as they move from one access point to the next).



Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Laurila and Bhagwat to implement a centralized authentication server for distributing authentication information in a dynamic fashion among PPP backend servers and further access points (Bhagwat, col. 10 lines 22-26)."

See the Office Action at page 6.

The Applicant draws the Examiner's attention to the following citation in the MPEP:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) **must teach or suggest all the claim limitations**. The teaching or suggestion to make the claimed combination and the reasonable expectation of success **must both be found in the prior art** and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 706.02(j)(D).

The combination of Laurila and Bhagwat do not teach all the claim limitation of "servicing said access device by one of said first access point, said second access point and said third access point **based on said initial authentication**" as recited by the Applicant in original independent claim 1. As previously stated,

Laurila creates a totally new SA to provide authentication for the new access point (New-AP) 114. See Laurila, FIG. 5A, step 506, and column 10, lines 50-52. In other words, Laurila utilizes new information to perform the authentication. Since Laurila creates a totally new SA, which is utilized to authenticate the new access point (New-AP) 114, then Laurila does not disclose "servicing said access device by one of said first access point, said second access point, and said third access point based on said initial authentication." Bhagwat does not make up for this deficiency in Laurila. Accordingly, independent claim 8, 18 and 28 are not rendered obvious by combining Laurila and Bhagwat, and are allowable.

The Applicant respectfully submits that Claims 8, 18 and 28 depend from independent claims 1, 11 and 21 respectively, and are allowable for at least the same reasons discussed above with respect to claims 1, 11 and 21, and, consequently, also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 1-31.

**CONCLUSION**

Based on at least the foregoing, the Applicant believes that all claims 1-31 are in condition for allowance. If the Examiner disagrees, the Applicant respectfully requests a telephone interview, and requests that the Examiner telephone the undersigned Attorney at (312) 775-8176.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

A Notice of Allowability is courteously solicited.

Respectfully submitted,

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